

Page 1, lines 3-4, replace "filed January 18, 1990," with --issued July 14, 1992--.

Page 3, line 31, insert --,-- after "reactions".

Page 3, line 31, replace "(PCR)," with --(PCR) or the  
ligase chain reaction,--.

Page 8, line 20, after "samples." insert --Samples may  
be less than a milliliter, less than a microliter, or less than a  
picoliter.--.

Page 13, line 25, replace "which" with --with--.

Page 14, line 1, replace "pre-determined" with  
--predetermined--.

Page 14, line 7, replace "need" with --needle--.

Page 14, line 13, replace "FIG. 2" with --FIG. 1--.

Page 15, line 26, replace "channel 34" with  
--channel 32--.

Page 18, line 43, replace "50bl and 50br" with --50b--.

Page 19, lines 2, 5, 20, 23, and 34, replace "nitride"  
with --silicon-nitride--.

Page 19, lines 24-28, replace "Left and right top  
access holes 64tl, 64tr, 65tl, and 65tr provide access to the  
polycrystalline layer 54t. Similarly, left and right bottom  
access holes 64bl, 64br, 65bl, and 65br provide access to the  
bottom polycrystalline layer 54b." with

--Left and right bottom access holes  
64bl, 64br, 65bl, and 65br provide  
access to the bottom polycrystalline  
layer 54b (and similarly for the top

B4  
access holes 64tl, 64tr, 65tl, and  
65tr, (not shown)).--.

Page 20, lines 2-3, replace "50bl, 50br, 50tl and 50tr"  
with --50b and 50t--.

B5  
Page 20, line 18, replace "65tr," with --65tr (labelled  
in FIG. 4(d) but not in FIG. 4(e)),--.

Page 21, line 16, replace "60tl and 60tr" with --60bl  
and 60br--.

Page 24, line 3, replace "64tly" with --64bly-- and  
"top" with --bottom--.

Page 24, line 4, replace "66t" with --66b-- and "60tly"  
with --60bl--.

Page 24, line 5, replace "62t" with --62b--.

Page 24, line 7, replace "70t" with --70b--.

Page 24, line 9, replace "64tlx" with --64blx--.

Page 27, line 24, insert --such as a protein-- after  
"organic,".

B6  
Page 27, line 25, insert --the reactants may be any  
type of large molecules, proteins, polymers or biochemical  
compounds;-- after "inorganic;".

B7  
Page 27, line 27, insert --the number of thermal cycles  
may be greater than ten, or greater than twenty five;-- after  
"means;".

In the Claims:

Claim 1 (Amended) An instrument for controlling [a  
chemical reaction of reagents comprising: integrated